

Appl. No. 10/787,062
Amdt. Dated January 29, 2007
Reply to Office Action of September 27, 2006

Attorney Docket No. 81880.0115
Customer No.: 26021

REMARKS/ARGUMENTS:

Claims 1-3 are amended. Support for the amendment to claim 1 can be found at p. 8, line 18-p. 9, line 2 of Applicant's specification. New claims 4-9 are added. Support for new claims 4-8 can be found in Figure 3 and at p. 10, line 23-p. 11, line 9 of Applicant's specification. Claims 1-9 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

The present invention relates to an artificial knee joint used to properly restore knee joints significantly deformed by chronic rheumatism, osteo-arthritis, pseudogout, and sudden osteonecrosis or the like. (Applicant's specification, at p. 1, lines 5-8).

CLAIM REJECTIONS UNDER 35 U.S.C. § 112:

Claims 1-3 stand rejected under 37 C.F.R § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office states, "It is suggested to change all recitations of inner to medial, outer to lateral, front to anterior, and rear to posterior."

In response, Applicant amended the claims in the manner suggested by the Office. Withdrawal of this rejection is thus respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102:

Claims 1-3 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Otto et al. (U.S. Patent Application No. 20004/0243244 A1).

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CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Otto in view of Roger (U.S. Patent No. 5,935,173).

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roger in view of Otto.

The Applicant respectfully traverses these rejections. Claim 1, as amended, is as follows:

An artificial knee joint which comprises a femoral component to be secured to a distal portion of a femur and a tibia component to be secured to a proximal portion of a tibia, comprising an medial sliding surface and an lateral sliding surface for receiving a load of the femoral component at the tibia component, wherein the medial sliding surface is formed in a sectional shape of circular arc at the anterior and posterior side(s) in the anterior-to-posterior direction thereof, while the lateral sliding surface is formed in a sectional shape of circular arc at the anterior side and in a sectional shape of linear at the posterior side(s) in the anterior-to-posterior direction thereof, wherein the anterior side of the medial sliding surface makes a circular arc having a curvature radius R_1 at a longitudinal section and the posterior side makes a circular arc having a curvature radius R_2 , wherein $R_1 < R_2$.

Applicant respectfully submits that the cited references cannot anticipate or render claim 1 obvious, because the cited references fail to teach or suggest "the anterior side of the medial sliding surface makes a circular arc having a curvature radius R_1 at a longitudinal section and the posterior side makes a circular arc having a curvature radius R_2 , wherein $R_1 < R_2$ ".

It is an aspect of the present invention as shown in FIG. 3, an R curved surface is provided at the front side and the rear side of the inner sliding surface 3 so as to tend to inhibit the sliding of the inner condyle in the femur component 2. In contrast, since the rear side of the outer sliding surface 4 is linearly shaped in a front-to-back (longitudinal) direction, inhibition of the sliding of the outer condyle in the femur component 1 is reduced. Accordingly, as shown in FIG. 4, the femur component 1 carries out the external rotation around the inner condyle and in this time, by making it small for a resistance (abrasion) between the outer condyle sliding surface 7 of the femur component 1 and the outer sliding surface 4 of the tibia component 2, the external rotation can be smoothly made. (Applicant's specification, at p. 9, line 16-p. 10, line 3).

Otto fails to teach or suggest any relationship between the anterior side curvature radius R_1 and the posterior side curvature radius R_2 , much less that R_1 is less than R_2 .

Roger teaches that in an anterior-posterior plane each of the recesses 21 has a first, anterior, section 22 having the radius R_1 and a second, posterior, section 23 having the radius R_2 . (Roger, column 5, lines 14-16; Figure 1). According to Figure 1 of Roger the anterior side curvature radius R_1 is greater than the posterior side curvature radius R_2 and not less than R_2 , as is required by amended claim 1. Consequently, Roger teaches away from the present invention.

In light of the foregoing, Applicant respectfully submits that the cited references could not have anticipated or rendered claim 1 obvious, because the combination of references fails to teach or suggest each and every claim limitation. Claims 2 and 3 were amended to depend from new claim 4. Withdrawal of these rejections is thus respectfully requested.

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In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

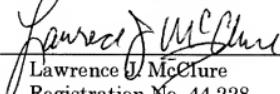
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4600 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,

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Date: January 29, 2007

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